

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

A29CE  
Revision 5  
BEECH

76  
April 15, 1996

**TYPE CERTIFICATE DATA SHEET NO. A29CE**

This data sheet which is part of Type Certificate No. A29CE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder                      Raytheon Aircraft Company  
    9709 E. Central  
    Wichita, KS 67201

**I - Model 76, Duchess, 4 PCLM (Normal Category), Approved January 24, 1978**

Engine	Lycoming O-360-A1G6D - Left and LO-360-A1G6D - Right	
Fuel	100/130 minimum grade aviation fuel or 100 low lead (blue)	
Oil	1st 50 hours MIL-L-6082C; thereafter MIL-L-22851	
Engine Limits	For all operations, 2700 r.p.m. (180 hp.)	
Propeller and Propeller Limits	(a) Hartzell constant speed propeller HC-M2YR-2CEUF/FC7666A (Left) 2 blades aluminum alloy and HC-M2YR-2CLEUF/FJC77666A (Right) 2 blades aluminum alloy Diameter: 76 in. nominal. Minimum allowed for repair 74 in., no further reduction permitted. Pitch setting at 30 in. station: low 12.1° ±0.1°, high 17° to 20°, feather 80° to 82° (b) Woodward hydraulic governor L210652 and R210652 (c) Hartzell spinner assembly C2285-3P and C2285-3PL	
Airspeed Limits (IAS)	Never exceed	194 knots (223 m.p.h.)
	Maximum structural cruising	154 knots (177 m.p.h.)
	Maneuvering	132 knots (152 m.p.h.)
	Flaps extended (35°)	110 knots (127 m.p.h.)
	(20°)	120 knots (138 m.p.h.)
	(15°)	140 knots (161 m.p.h.)
	Maximum landing gear extension	140 knots (161 m.p.h.)
	Maximum landing gear retraction	113 knots (130 m.p.h.)
C.G. Range (Landing Gear Extended)	<u>Normal Category</u> (+110.6) to (+117.5) at 3900 lb. (+106.6) to (+117.5) at 3250 lb. and less Straight line variation between points given Landing gear retraction moment (-1177 in.-lb.)	
Empty Wt. C.G. Range	None	
Leveling Means	Baggage compartment floor	

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Maximum Weight	Ramp	3,916 lb.		
	Takeoff	3,900 lb.		
	Landing	3,900 lb.		
	Zero fuel	3,500 lb.		
No. of Seats	4 maximum (2 at +105 forward or +112 aft position, 2 at +142 standard or +144 optional)			
Maximum Baggage	200 lb. (+167.0)			
Fuel Capacity	<u>Tank</u>	<u>Capacity Gal.</u>	<u>Usable Gal.</u>	<u>Arm</u>
	L&R main	103	100	+117.0
	See NOTE 1 for data on unusable fuel.			
Oil Capacity	20 qt. (+75.4)			
	See NOTE 1 for undrainable oil			
Control Surface Movements	Wing flaps			Down 35° ±1°
		Up	20° ± 1°	Down 15° ±1°
	Rudder	Right	30° ± 1°	Left 30° ±1°
	Elevator	Up	20° +1°, -0°	Down 15° +1°, -0°
	Rudder tab	Right	20° ± 1°	Left 20° ± 1°
	Elevator tab	Up	4° ± 1/2°	Down 20° ± 1/2°
	(with elevator neutral)			
Serial Nos. Eligible	ME-2 and up			

#### Data Pertinent to All Models

Datum	103 inches forward of wing leading edge (constant chord section)
Certification Basis	Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 through 23-16 and FAR 36 effective June 1974, Amendment 36-1 through 36-10. Equivalent safety findings: FAR 23.621 (S/N ME-2 through ME-437 only), 23.1545, and 23.1583(a).
	One-engine inoperative stall characteristics tests identified in FAA letter to Beech dated May 27, 1976.
	Application for type certificate dated October 24, 1975. Type Certificate A29CE issued January 24, 1978, obtained by the manufacturer under delegation option procedures.
Production Basis	Production Certificate No. 8. Delegation Option Manufacturer No. CE-2 authorized to issue airworthiness certificates under delegation option provisions of Part 21 of the Federal Aviation Regulations.
Equipment	The basic required equipment as prescribed in applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following item of equipment is required:
	1. Pilot's Operating Handbook and FAA Approved Airplane Flight Manual P/N 105-590000-5 dated January 1978 as revised March 1979, or later.

NOTE 1. Current weight and balance data, loading information and a list of equipment included in basic empty weight must be provided for each airplane at the time of original certification.

- (a) Basic empty weight includes unusable fuel of 20 lb. at +123.2, with 1.6 lb. at +124.8 being undrainable.

(b) Basic empty weight includes engine oil of 37 lb. at +75.4, with 7.3 lb. being undrainable.

NOTE 2. All placards required in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual must be installed in the appropriate locations.

NOTE 3. Mandatory retirement times for all structural components are contained in the Airplane Flight Manual  
Limitations Section (P/N 105-590000-5). These limitations may not be changed without FAA Engineering approval.

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